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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,326	11/14/2003	Qhalid Fareed	SETI-0009	9895
23550	7590	09/30/2005	EXAMINER	
HOFFMAN WARNICK & D'ALESSANDRO, LLC			SCHILLINGER, LAURA M	
75 STATE STREET			ART UNIT	
14TH FL			PAPER NUMBER	
ALBANY, NY 12207			2813	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/713,326	Applicant(s) FAREED ET AL.	
	Examiner Laura M. Schillinger	Art Unit 2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/14/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 10-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected claims, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/19/05.

Applicant's election with traverse of claims 1-9 in the reply filed on 7/19/05 is acknowledged. The traversal is on the ground(s) that the search would not be burdensome and the claims are substantially similar. This is not found persuasive because the claims each contain mutually exclusive characteristics warranting a separate search which would in fact be burdensome.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by McIntosh et al ('905).

McIntosh teaches the following claimed limitations as cited below:

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1. A method of growing a nitride-based film, the method comprising:

applying a first precursor flux for a first element using a first pulse, wherein the first pulse has a first duration and wherein the first element comprises nitrogen (NH_3 —Col.10, lines: 1-65); and
applying a second precursor flux for a second element using a second pulse, wherein the second pulse has a second duration, and wherein the second duration is not equal to the first duration (Col.10, lines: 45-65).

2. The method of claim 1, further comprising applying a third precursor flux for a third element using a third pulse, wherein the third pulse has a third duration, and wherein the third duration is not equal to the first duration (Col.10, lines: 15-65).

3. The method of claim 2, further comprising applying a fourth precursor flux for a fourth element using a fourth pulse, wherein the fourth pulse has the first duration (Col.10, lines: 15-65).

4. The method of claim 3, wherein the nitrogen precursor flux comprises NH_3 , the second precursor flux comprises TMG, the third precursor flux comprises TMI, and the fourth precursor flux comprises TMA (Col.10, lines: 1-25).

5. The method of claim 1, wherein at least a portion of the first pulse is applied at the same time that at least a portion of the second pulse is applied (Fig.12).

6. The method of claim 1, wherein at least one of the first pulse and the second pulse has a non-rectangular waveform (Fig.14).
7. The method of claim 1, further comprising illuminating the nitride-based film with UV radiation (Col.8, lines: 30-40).
8. The method of claim 1, wherein the nitride based film is grown on a substrate comprising at least one of: lithium aluminate and silicon (Col.7-8, lines: 60-15).
9. The method of claim 1, wherein the first precursor flux further comprises a plurality of subsequent pulses, wherein each subsequent pulse has the first duration and wherein each subsequent pulse is separated from a previous pulse by a gap having the first duration (Col.10, lines: 45-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Laura M Schillinger', with a large, stylized loop at the end of the last name.

Laura M Schillinger
Primary Examiner
Art Unit 2813

09/27/05